

Appl. No.: 10/085,910

Amendment dated April 8, 2005

Supplemental Reply to Office Action of February 7, 2005

REMARKS/ARGUMENTS

The office action of February 7, 2005, has been carefully reviewed and these remarks are supplementary responsive thereto. Applicant herein amends claims 1, 3, 5-9, 14-16, 21, 22, 24, 29, 31, 36, 37, 42 and 44, and cancels claims 43 and 45. Claims 1, 3-42, and 44 remain pending in the application, and reconsideration and allowance of the application are respectfully requested.

Rejections Under 35 U.S.C. § 112

Claim 15 stands rejected under 35 U.S.C. § 112, second paragraph. Applicant has amended claim 15 to provide correct antecedent basis, and respectfully requests the rejection be withdrawn.

Rejections Under 35 U.S.C. § 103

Claims 1, 5-6, 24, 26-29, 31, 33 and 41-42 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jonsson (U.S. Pat. No. 5,513,246) in view of Dolan (U.S. Pat. No. 6,628,632) and further in view of Malek (U.S. Pat. No. 5,822,313). This rejection is respectfully traversed for at least the following reasons.

In order to reject a claim as obvious under § 103(a), three criteria must exist: 1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings; 2) there must be a reasonable expectation of success; and 3) the prior art reference(s) must teach or suggest all the claim limitations. *See* MPEP § 706.02 (j); *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991).

Jonsson, Dolan, and Malek, even if combined, do not teach or suggest all the features of any claim. For example, with respect to claim 1, the Office Action alleges that Jonsson describes a service signal being provided by each of a plurality of transmitters. Recognizing that the claim term "service" might be construed as referring only to a control or administrative channel, which was unintended, applicants have amended claim 1 to refer to a "digital video broadcasting signal," which is not taught or suggested by Jonsson, Dolan or Malek. The amendment is intended to clarify that the signal is not limited to signal administrative information. Jonsson,

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Dolan, and Malek, however, describe systems only for use with non-broadcast, individualized signals intended for a single mobile terminal, not a digital video broadcast signal which, by definition, is intended for simultaneous receipt by multiple devices.

In addition, the Office Action indicates that Dolan describes digital video broadcasting. However, the Office Action misapplies Dolan. While Dolan indicates that video can be digitally transmitted, the digital video in Dolan is not content broadcast to a plurality of devices, but rather is transmitted only to a single device at a time. The cited references, even if combined, therefore do not teach or suggest all the features of claim 1, and the Office Action has thus not established a *prima facie* case of obviousness with respect to claim 1.

In addition, given the inherent differences between broadcasting a signal to multiple devices at the same time, as claimed, versus transmitting a signal to a single device, as in each of the references, it is more than an intuitive leap for one of ordinary skill in the art to use or modify any of the teachings, individually or collectively, to arrive at the presently claimed invention. There is no motivation or suggestion to modify the cited references to arrive at the invention of claim 1, and the cited references therefore do not render obvious the invention of claim 1.

Claims 5-6 are dependent back to claim 1 and are allowable for at least the same reasons as claim 1.¹

Likewise, the cited references, even if combined, do not teach or suggest all the features of independent claim 24. Claim 24 recites, *inter alia*:

switch reception by the digital broadcast receiver from the first digital video broadcasting wireless transmitter to a second digital video broadcasting wireless transmitter after reception of said first transmission burst has been completed and before a consecutive transmission burst is sent by the synchronized first and second digital video broadcasting wireless transmitters.

¹ Applicant notes that the rejection of claim 5 is improper, insofar as claim 5 is dependent on claim 3. Claim 3 was rejected under a combination of Jonsson, Dolan, Malek, and Ahopelto, whereas claim 5 was rejected only under Jonsson, Dolan, and Malek. While it appears that this is an unintended oversight on the Office's part, Applicant is unsure whether to address Ahopelto in the rejection of claim 5, or to ignore Ahopelto in the rejection of claim 3. In order to avoid making unnecessary statements which might later be used against the Applicant, e.g., under the *Festo* doctrine, the Applicant respectfully requests clarification of the rejections of claims 3 and 5 in a subsequent non-final Office Action, if the rejection(s) is/are maintained.

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The Office Action cites Malek as describing such features. However, Malek does not perform as recited in claim 24. Malek merely describes a TDMA controller that assesses a quality of the handover before switching from one base station to the next by ceasing transmitting and receiving via the old base station, and on the next frame beginning transmitting and receiving via the new base station. Malek, col. 6, lines 27-45. However, the TDMA frames of Malek are different than the broadcast transmission bursts as claimed. Malek does not describe a system whereby a consecutive transmission burst is sent by synchronized first and second digital video broadcasting wireless transmitters, whereby each synchronized transmitter is synchronously transmitting a common signal, as claimed. Malek likewise does not teach or suggest that the handover is performed before a consecutive transmission burst is sent by both the first and second transmitters, because Malek only describes a handover between TDMA frames, which are different from synchronously broadcast transmission bursts. Indeed, a single transmission burst may contain many frames.

In addition, Jonsson does not teach or suggest synchronous transmission of a digital video broadcasting transmission burst. Indeed, Jonsson describes no synchronous transmissions at all. The Office Action alleges that Jonsson describes such a feature at col. 2, lines 32-38, reproduced below:

35 In a cellular mobile radiotelephone system having a plurality of cells providing radio coverage by a plurality of base stations and having a plurality of mobile stations, the location of a mobile station with respect to cell boundaries is identified using measurements, performed at the mobile station or at selected cells, of transmissions from the cells or transmissions from the mobile stations. When a cell is found

As is evident, however, Jonsson does not describe synchronization at the cited location, or elsewhere. Jonsson merely indicates that cells are capable of transmission, and is silent as to any synchronization between them. Jonsson also does not teach or suggest such synchronization at col. 5, lines 40-49, as further alleged by the office action. At that cited location, Jonsson merely describes the behavior of a single base station.

The cited references therefore, alone and/or in combination, do not establish a *prima facie* case of obviousness over claim 24.

Claims 26-29, dependent back to claim 24, are allowable at least for the same reasons as amended independent claim 24.

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With respect to claim 31, the cited references have similar deficiencies as with claims 1 and 24. In addition, the combined references also do not teach or suggest:

a first digital video broadcasting transmitter configured to broadcast information as a first plurality of consecutive transmission bursts;

a second digital video broadcasting transmitter configured to broadcast the information as a second plurality of consecutive transmission bursts in synchronization with the first plurality of consecutive transmission bursts...

The Office Action cites Jonsson as describing such features. However, Jonsson does not describe a synchronized transmission system as claimed. At a different portion cited by the Office action than with respect to claim 24, Jonsson states at col. 10, lines 11-15:

If the present cell is not the best cell, the mobile services center then tries to allocate a channel in each of the better cells in turn in order of their ranking until either the allocation is successful or the present cell is the next-best
15 cell according to its ranking (S19). If a channel cannot be

Nowhere does Jonsson teach or suggest that transmissions of information by a first and second transmitter are synchronized, as claimed, and claim 31 is thus allowable over the art of record. Claim 33 is allowable for at least the same reasons as claim 31.

Claims 41 and 42 are allowable at least for the same reasons as base claim 1, as well as for similar reasons as claims 24 and 31 regarding synchronization, and as claim 24 regarding switching reception.

Claims 3 and 4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jonsson in view of Dolan and Malek, and further in view of Ahopelto (U.S. Pat. No. 5,970,059). Claims 3 and 4, however, are allowable at least for the same reasons as their respective base claims, because Ahopelto does not cure the deficiencies of Jonsson, Dolan, and/or Malek, and further in view of the additional features recited therein.

Claims 7-8, 25, and 34-35 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jonsson in view of Dolan and Malek, and further in view of Nguyen (U.S. Pat. No. 5,359,607). Claims 7-8, 25, and 34-35, however, are allowable at least for the same reasons as

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their respective base claims, because Nguyen does not cure the deficiencies of Jonsson, Dolan, and/or Malek, and further in view of the additional features recited therein.

Claims 21, 23, 36-38 and 45 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jonsson in view of Nguyen and Malek. This rejection is traversed for at least the following reasons.

Claim 45 has been canceled by the present amendment. Claims 21 and 36, and dependent claims as applicable, have been amended, similar to claim 1, to clarify that the digital video broadcasting signal is not limited to service information such as administrative data.

As discussed above, contrary to the assertion by the Office Action, Jonsson does not teach or suggest synchronized transmission by a plurality of wireless transmitters, as claimed in claims 21 and 36.

Claims 23, 37, and 38 are allowable at least for the same reasons as their respective base claims, and further in view of the additional features recited therein.

Claim 22 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Jonsson in view of Nguyen and Malek, and further in view of Taketsugu (U.S. Pat. No. 5,420,863). However, Taketsugu describes hand-offs between allotted timeslots, which are different from transmission bursts in a digital video broadcasting system as claimed. Claim 22 is also allowable for at least the same reasons as its respective base claim, because Taketsugu does not cure the deficiencies of Jonsson, Nguyen, and/or Malek.

Claims 9, 11-14, 16, 18, 39, and 43 stand rejected under 35 U.S.C. §103(a) as unpatentable over Jonsson in view of Makinen (U.S. Pat. No. 5,764,700). This rejection is respectfully traversed for at least the following reasons.

Applicant has amended claim 9 to recite, *inter alia*, "said first transmission burst broadcast synchronously by a first wireless transmitter and a second wireless transmitter." (emphasis added). As discussed above, Jonsson does not teach or suggest such a feature. Makinen, likewise, fails to teach or suggest such a feature. Indeed, Makinen is directed only to a

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radio link system in which a fixed radio connection is established between two radio link terminals (Makinen, Abstract), not a broadcast system whereby multiple transmitters synchronously transmit common information. Claims 11-14 are allowable for at least the same reasons as base claim 9, and further in view of the additional features recited therein.

Claim 16 recites, *inter alia*, "a first transmitter for broadcasting at least an interval of information as a transmission burst in synchronization with at least one other transmitter." As with claim 9, neither Jonsson nor Makinen teaches or suggests such a feature. Claims 18 and 39 are allowable for at least the same reasons as base claim 16, and further in view of the additional features recited therein. Claim 43 has been canceled by the present amendment.

Claims 10 and 19-20 stand rejected under 35 U.S.C. §103(a) as unpatentable over Jonsson in view of Makinen, and further in view of Nguyen. Nguyen does not cure the deficiencies of Jonsson and Makinen. Therefore, claims 10 and 19-20 are allowable at least for the same reasons as their respective base claims.

Claim 17 stands rejected under 35 U.S.C. §103(a) as unpatentable over Jonsson in view of Makinen, and further in view of Doshi (U.S. Pat. No. 5,936,965). Claim 17 is allowable for at least the same reasons as base claim 16 because Doshi does not cure the above-discussed deficiencies of Jonsson and Makinen. In addition, there is no motivation or suggestion to combine Doshi, directed to the transmission of multiple protocols over a single bytestream, with either Jonsson or Makinen. While the Office Action alleges it would have been obvious to combine Doshi with the other references "for compatibility purposes," there is no alleged incompatibility in the first place. Nor does the Office Action describe how one or more of the references may be modified to make them compatible. Thus, there is no suggestion or motivation to combine the references, and claim 17 is allowable over the art of record.

Claim 32 stands rejected under 35 U.S.C. §103(a) as unpatentable over Jonsson in view of Dolan and Malek, and further in view of Doshi (U.S. Pat. No. 5,936,965). Claim 32 is allowable for at least the same reasons as base claim 31 because Doshi does not cure the above-

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discussed deficiencies of Dolan and Malek. Also, as with claim 17, there is no motivation or suggestion to combine Doshi, directed to the transmission of multiple protocols over a single bytestream, with either Jonsson or Makinen.

Claims 40 and 44 stand rejected under 35 U.S.C. §103(a) as unpatentable over Jonsson in view of Makinen, and further in view of Malek. This rejection is respectfully traversed for at least the following reasons. Claims 40 and 44 are allowable at least based on the allowability of their respective base claims. In addition, none of the cited references teach or suggest completing a handover prior to a subsequent synchronous transmission burst, as discussed above. While Malek generally discusses performing a handover at the end of a TDMA frame, a TDMA frame is not the same as a broadcast transmission burst, as claimed.

Claim 15 stands rejected under 35 U.S.C. §103(a) as unpatentable over Jonsson in view of Makinen, and further in view of Lim (U.S. Pat. No. 6,766,168). Claim 15 is allowable at least for the same reasons as base claim 14.

Claim 30 stands rejected under 35 U.S.C. §103(a) as unpatentable over Jonsson in view of Dolan and Malek, and further in view of Lim. Claim 30 is allowable at least for the same reasons as base claim 29.

CONCLUSION FOLLOWS ON NEXT PAGE

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CONCLUSION

All rejections having been addressed, Applicants respectfully submit that the instant application is in condition for allowance, and respectfully solicit prompt notification of the same. However, if for any reason the examiner believes the application is not in condition for allowance or there are any questions, the examiner is requested to contact the undersigned at (202) 824-3153.

Respectfully submitted,

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Dated this 8th day of April, 2005

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